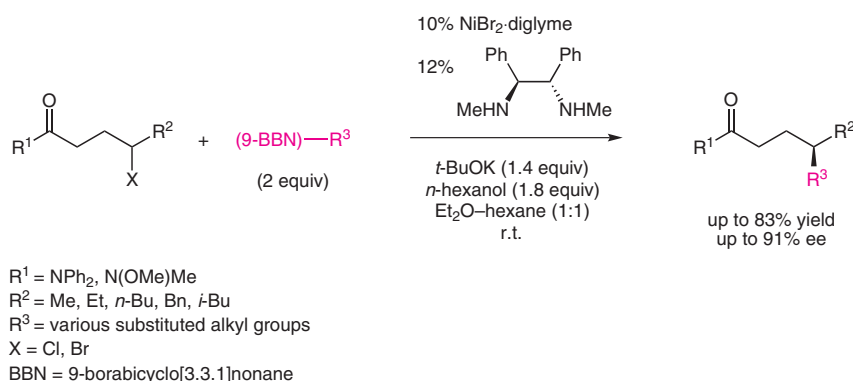


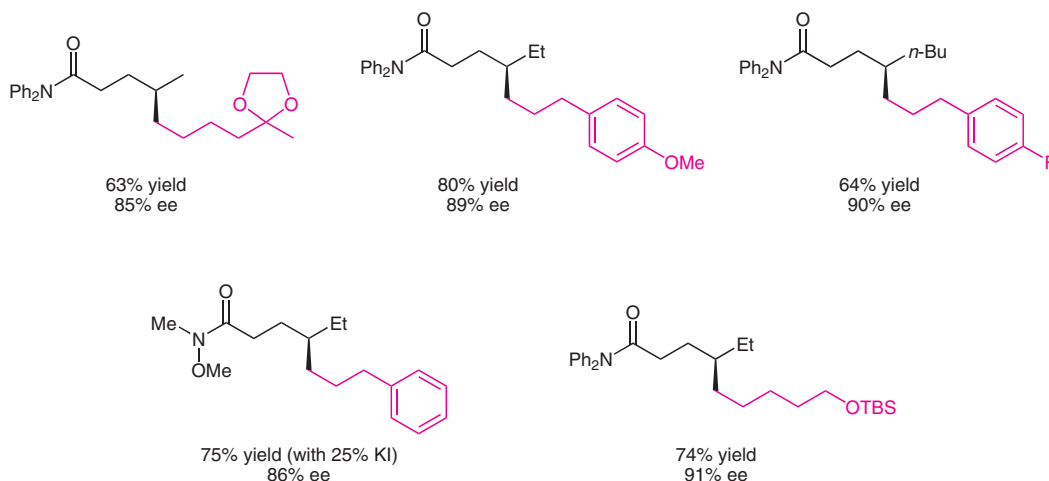
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Catalytic Asymmetric γ -Alkylation of Carbonyl Compounds via Stereoconvergent Suzuki Cross-Couplings
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Catalytic Enantioselective γ -Alkylation of Carbonyl Compounds



Selected examples:



Significance: The authors describe a new method for the catalytic enantioselective γ - (and δ -) alkylation of carbonyl compounds by cross-coupling of γ - (and δ -) haloamides with alkylboranes. The reaction is catalyzed by nickel and uses a commercially available chiral diamine ligand to achieve high enantiomeric excess.

Comment: The reaction conditions tolerate alkyl chlorides as well as alkyl bromides as suitable electrophilic cross-coupling partners. Also, an aryl metal, a boronate ester, and a secondary alkyl metal compound are able to undergo the stereo-selective cross-coupling with good enantiomeric excess.

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